

REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.116
U.S. APPLICATION NO. 09/512,313
ATTORNEY DOCKET NO. Q57991

this was a typographical error and assumes that the Examiner intended to reject pending Claims 1, 4-7, 13, and 15.

Applicant respectfully submits that the invention, as set out in the above-listed claims, is patentable for at least the following reasons.

Kaku

With respect to Claim 1, Applicant respectfully submits that Kaku fails to teach or suggest at least:

a deflector, operable to deflect laser light emitted from the laser emitting device, the deflector supported by the supporting frame such that a deflection angle thereof is adjustable such that a first direction in which a diverging angle in a direction perpendicular to the optical axis of the laser light becomes narrowest is aligned with a radial direction of the optical recording disk, and a distance between the deflector and the laser light emitting device is adjustable such that an offset between a center of an intensity distribution of the laser light and an optical axis of the objective lens is eliminated (Claim 1).

Kaku discloses an optical apparatus for use in a tracking servo system. As shown in Kaku Figure 8, the apparatus disclosed therein includes a beam splitter 73, which serves to deflect a portion of the light emitted from laser source 71. However, the beam splitter 73 is not adjustable in any direction. The apparatus disclosed by Kaku further includes a mirror 96 which deflects the light from the laser source 71 to a disk 76. According to Kaku, the mirror 96 can be adjusted by a driver 93, so that the reflected laser light traces the track in the disk 76 (*see* Kaku, col. 7, lns. 60-62). However, Kaku fails to teach or suggest a deflector that is adjustable such that a diverging angle in a direction perpendicular to the optical axis of the laser light becomes narrowest is aligned with a radial direction of an optical recording disk, as recited in Claim 1. The Examiner

REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.116
U.S. APPLICATION NO. 09/512,313
ATTORNEY DOCKET NO. Q57991

acknowledges this in the current Office Action (p. 3). Additionally, Kaku fails to teach or suggest a distance between the deflector and the laser light emitting device being adjustable.

Hueton

Applicant respectfully submits that Hueton fails to remedy Kaku's failure to teach or suggest the above-mentioned recitations, with respect to Claim 1, for at least the following reasons.

Hueton discloses an optical apparatus for use with a fluorescence scanner. As described in the abstract, the apparatus described in Hueton includes a number of optical components, including a laser light source, a detector, and various filters, lenses, and reflectors in a fixed position. The scan head includes a single filter and a single lens, and is moveable along a single axis in order to scan a sample. The single reflector 13 located within the scan head is adjustable along with the rest of the scan head in a direction parallel to the incoming direction of the laser light and parallel to the light emitted from the laser light source, as shown in Figure 2. This is the only adjustable portion of the apparatus disclosed by Hueton and, like Kaku, it fails to teach or suggest a deflector that is adjustable such that a diverging angle in a direction perpendicular to the optical axis of the laser light becomes narrowest and is aligned with a radial direction of an optical recording disk.

Shiba

Applicant respectfully submits that, like Hueton, Shiba fails to remedy Kaku's failure to teach or suggest the above-mentioned recitations, with respect to Claim 1, for at least the following reasons.

Shiba discloses an optical apparatus for optical pickup and recording/reproducing of information. As shown in Figure 5 of Shiba, the apparatus includes surface acoustic wave (SAW) electrodes 5 and SAW 6 within a waveguide layer 3.

Shiba, like Kaku, fails to disclose “a lens driver, supported by the supporting frame, the lens driver operable to move an objective lens in a focusing direction and a tracking direction of an optical recording disk to converge the laser light deflected by the deflector onto the optical recording disk.” as recited in claim 1. Shiba discloses no moveable elements in its optical apparatus, and teaches away from the use of moveable parts in order to reduce micro seek time. (Shiba, col. 1, lns. 18-24). In fact, Shiba also discloses the goal of deflecting a plurality of light spots onto the optical recording medium, thus teaching away from converging the laser light.

Further, Applicant respectfully submits that one of ordinary skill in the art at the time of the presently-claimed invention would not have been motivated to combine Kaku and Shiba as suggested by the Examiner because there is no suggestion of motivation for doing so in the references themselves or the knowledge available to one of ordinary skill in the art without resorting to impermissible hindsight. The apparatus of Shiba depends on the use of an optical waveguide layer, along with SAW electrodes and SAW, in order to vary the incidence angle of light emitted from a laser source. Applicant respectfully submits that it would not have been obvious to combine these features with the apparatus of Kaku, which utilizes only mechanical optics.

II. Conclusion

In view of the foregoing, it is respectfully submitted that independent Claim 1 is patentable over the above-cited references. The limitations of independent Claim 4 parallel those

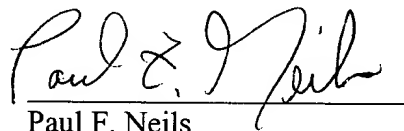
REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.116
U.S. APPLICATION NO. 09/512,313
ATTORNEY DOCKET NO. Q57991

of Claim 1, and therefore, Applicant respectfully submits that Claim 4 is patentable for at least the same reasons as presented above with respect to Claim 1. Further, Applicant respectfully submits that Claims 5-7, 13, and 15 depend from Claims 1 and 4 and are patentable at least by virtue of their dependence thereon. Applicant therefore respectfully requests that the Examiner's rejection of Claims 1, 4-7, 13, and 15 under §103 be reconsidered and withdrawn, and that the application be passed to issue at the earliest possible time.

If the Examiner does not find this application in condition for allowance, he is respectfully requested to call the undersigned attorney at the phone number listed below to discuss the steps necessary for placing the application in condition for allowance.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Paul F. Neils
Registration No. 33,102

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: January 6, 2004